UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,359	09/22/2003	Maureen Heymans	0026-0036	4909

44989 7590 10/29/2008

HARRITY & HARRITY, LLP
11350 Random Hills Road
SUITE 600
FAIRFAX, VA 22030

EXAMINER	
GOODCHILD, WILLIAM J	

ART UNIT	PAPER NUMBER
2445	

MAIL DATE	DELIVERY MODE
10/29/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/665,359
Filing Date: September 22, 2003
Appellant(s): HEYMANS ET AL.

John E. Harrity (Reg. No. 43,367)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 17, 2008 appealing from the Office action mailed April 17, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 101 rejections of claims 30-34 and 47.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2003/0061211	Shultz et al.	3-2003
WO 02/15479	Scarfe et al.	2-2002
2003/0023489	McGuire et al.	1-2003
6,665,715	Houri	12-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 6, 8-10 rejected under 35 U.S.C. 102(e) as being anticipated by Shultz et al., (US Publication No. 2003/0061211), (hereinafter Shultz).

Regarding claim 6, Shultz discloses collecting location information associated with first users that access a resource [Shultz, paragraphs 14 and 17];

determining second location information associated with a second user [Shultz, paragraphs 14 and 17, location information is gathered for multiple users];

providing a document associated with the resource to the second user based, at least in part, on matching of the geographic relevance of the resource to the second location information [Shultz, paragraphs 14 and 17].

Regarding claim 8, Shultz further discloses the resource is a web document [Shultz, paragraphs 7 and 19].

Regarding claim 9, Shultz further discloses the document associated with the resource is an advertisement [Shultz, paragraph 19].

Regarding claim 10, Shultz further discloses the document associated with the resource is the same as the resource [Shultz, paragraphs 7 and 19].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 7, 11, 13-14, 16, 18-21, 30-32, 35-36, 38-39, 42-45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz, and further in view of Scarfe et al., (International Publication No. WO 02/15479), (hereinafter Scarfe).

Regarding claim 1, Shultz discloses determining geographic locations associated with users that access a resource [Shultz, paragraph 17];
storing an indication that the resource is associated with a geographic area corresponding to the located cluster [Shultz, paragraphs 14 and 17].
Shultz does not specifically disclose performing a cluster analysis of the geographic locations to locate a cluster of the geographic locations. However, Scarfe discloses deciding which cluster the IP address fall into [Scarfe, page 18, lines 5-14 and pages 16-17]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include clustering IP address based on location in order to tabulate where users accessing a particular web site are located.

Regarding claim 2, Shultz further discloses the resource is a web advertisement [Shultz, paragraph 19].

Regarding claim 3, Shultz further discloses the resource is a web site [Shultz, paragraphs 7 and 19].

Regarding claim 4, Shultz-Scarfe further discloses the geographic locations are derived from network address [Scarfe, paragraph 59].

Regarding claim 7, Shultz-Scarfe further discloses the collecting location information further comprises collecting location information from multiple first users [Shultz, paragraphs 14 and 17, location information is gathered for multiple users], and wherein performing an analysis further comprises performing a cluster analysis [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 11, Shultz-Scarfe further discloses the location information includes network addresses of the first users [Scarfe, paragraph 59].

Regarding claim 13, Shultz-Scarfe further discloses collecting the location information associated with the first users includes collecting at least one of location information stored in cookies, location information derived from search terms entered by the user, and location information derived from browsing patterns [Scarfe, paragraph 43].

Regarding claim 14, Shultz-Scarfe further discloses determining a plurality of locations associated with users that access the web site [Shultz, paragraph 17];
analyzing, via a cluster analysis [Scarfe, page 18, lines 5-14 and pages 16-17], the determined locations to determine geographical relevance of the web site [Shultz, paragraphs 14 and 17]; and

storing the determined geographical relevance of the web site [Shultz, paragraphs 14 and 17].

Regarding claim 16, Shultz-Scarfe further discloses the plurality of locations are network address of the users [Scarfe, paragraph 59].

Regarding claim 18, Shultz-Scarfe further discloses determining the plurality of locations associated with the users includes at least on of using location information stored in cookies, using account information of the users, using search terms entered by the user, and using browsing patterns of the users [Scarfe, paragraph 43].

Regarding claim 19, Shultz further discloses determining the plurality of locations associated with the users includes collecting location information using an application running locally to the users [Shultz, paragraphs 14 and 34].

Regarding claim 20, Shultz further discloses the applications include at least one of a browser tool bar, a browser plug-in, and a browser [Shultz, paragraph 34].

Regarding claim 21, Shultz-Scarfe further discloses the location information includes at least one of IP addresses of the users and network addresses of resources accessed by the users [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 30, Shultz-Scarfe further discloses a document selector component configured to locate a set of documents relevant to a search query [Shultz, paragraphs 12-13], the document selector component basing the determination of relevancy at least in part on geographic relevance information associate with documents in the set of documents [Shultz, paragraphs 12-13]; and

a geographic relevance component configured to generate the geographic relevance information [Shultz, paragraph 12] associated with the documents in the set of documents by gathering a plurality of network addresses of users that access the documents in the set of documents [Scarfe, page 18, lines 5-14 and pages 16-17], mapping the plurality of network addresses to location data points [Scarfe, page 18, lines 5-14 and pages 16-17], and performing a cluster analysis on the location data points to locate clusters of the located data points [Scarfe, page 18, lines 5-14 and pages 16-17], the located clusters indicating areas of geographic relevance [Shultz, paragraphs 12-13],

where the computer-implemented search engine returns search results to a user based on the set of relevant documents [Shultz, paragraphs 14 and 17].

Regarding claim 31, Shultz-Scarfe further discloses the geographic relevance component performs the cluster analysis [Scarfe, page 18, lines 5-14 and pages 16-17] on the location data points based on a determination of whether the location data points tend to form one or more clusters [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 32, Shultz-Scarfe further discloses the geographic relevance component additionally determines a probability that a location associated with a user that submitted the search query is geographically relevant to the documents in the set of documents [Shultz, paragraph 14] based on a statistical model applied to the one or more clusters [Scarfe, page 11, lines 8-18].

Regarding claim 35, Shultz-Scarfe further discloses determining a geographic location associated with the user [Shultz, paragraphs 12-13];
acquiring geographic relevance information for the network resource [Shultz, paragraphs 14 and 17], the geographic relevance information including information that defines at least one cluster associated with the network resource [Scarfe, page 18, lines 5-14 and pages 16-17], the information defining the at least one cluster including at least a center point of the cluster and a measure of dispersion of the cluster [Scarfe, page 11, lines 8-18];
determining the probability that the user is geographically relevant to the network resource [Shultz, paragraph 14] based on a statistical model applied to the at least one cluster [[Scarfe, page 11, lines 8-18]; and
returning search results to the user based on the determined probability [Shultz, paragraphs 14 and 17].

Regarding claim 36, Shultz-Scarfe further discloses the determination of geographic location associated with the user is based on terms in the search query [Shultz, paragraphs 12-13].

Regarding claim 38, Shultz-Scarfe further discloses gathering a plurality of network addresses of users that access the network resource [Shultz, paragraph 17];
mapping the plurality of network addresses to location data points [Scarfe, page 18, lines 5-14 and pages 16-17];
performing a cluster analysis on the location data points to generate the geographic relevance information [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 39, Shultz-Scarfe further discloses the determination of geographic relevance of the user is based on web access patterns of the user [Shultz, paragraphs 14 and 17].

Regarding claim 42, Shultz-Scarfe further discloses determining whether the location data points tend to form one or more clusters [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 43, Shultz-Scarfe further discloses associating geographic location information with the network resource based on the one or more clusters [Shultz, paragraphs 14 and 17].

Regarding claim 44, Shultz-Scarfe further discloses the plurality of network addresses are Internet Protocol (IP) address [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 45, Shultz-Scarfe further discloses gather a plurality of network addresses of users that access the network resource [Shultz, paragraph 17];
map the plurality of network addresses to data points that correspond to geographic locations [Scarfe, page 18, lines 5-14 and pages 16-17];
perform a cluster analysis on the data points to locate one or more cluster of the data points [Scarfe, page 18, lines 5-14 and pages 16-17];
determine a geographic location for the network resource based on the cluster analysis [Shultz, paragraphs 14 and 17]; and
store an indication that the network resource is associated with the determined geographic location [Shultz, paragraphs 14 and 17].

Regarding claim 47, Shultz-Scarfe further discloses means for gathering a plurality of network addresses of users that access the network resource [Shultz, paragraph 17];
means for mapping the plurality of network addresses to data points that correspond to geographic locations [Scarfe, page 18, lines 5-14 and pages 16-17];
means for performing a cluster analysis on the data points to locate one or more clusters of the data points [Scarfe, page 18, lines 5-14 and pages 16-17];

means for determining a geographic relevance of the network resource based on the located one or more clusters [Shultz, paragraphs 14 and 17]; and
means for storing an indication of the geographic relevance of the network resource [Shultz, paragraphs 14 and 17].

5. Claims 12, 17, 22-26, 28, 40-41 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz-Scarfe as applied to claims 11 above, and further in view of McGuire et al., (US Publication No 2003/0023489), (hereinafter McGuire).

Regarding claim 12, Shultz-Scarfe do not specifically disclose mapping the network address to two-dimensional coordinate information. However, McGuire discloses mapping IP addresses to geographical information such as the latitude and longitude [McGuire, paragraph 112]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include latitude and longitude coordinates in order to gather geographical information on a users location.

Regarding claim 17, Shultz-Scarfe-McGuire further discloses mapping the plurality of network address to two-dimensional coordinate information [McGuire, paragraph 112], wherein analyzing the determined locations includes performing the cluster analysis [Scarfe, page 18, lines 5-14 and pages 16-17] based on the two-dimensional coordinate information [McGuire, paragraph 112].

Regarding claim 22, Shultz-Scarfe-McGuire further discloses associating the network addresses with a two-dimensional point defined by latitude and longitude values estimated from the network addresses [McGuire, paragraph 112].

Regarding claim 23, Shultz-Scarfe-McGuire further discloses mapping the network addresses to cities that are estimated to be closest to physical locations associated with the network addresses [Shultz, paragraph 18];
mapping the cities to a two-dimensional point defined by latitude and longitude values [McGuire, paragraph 112].

Regarding claim 24, Shultz-Scarfe further discloses determining whether the plurality of two-dimensional coordinates tends to form one or more clusters [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 25, Shultz-Scarfe further discloses associating geographic location information with the resource [Shultz, paragraphs 14 and 17] based on the one or more clusters [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 26, Shultz-Scarfe further discloses determining a probability that a location associated with a particular user is within the geographic location associated with the web resource [Shultz, paragraph 14] based on a statistical model applied to the one or more clusters [[Scarfe, page 11, lines 8-18];

Regarding claim 28, Shultz-Scarfe further discloses the plurality of network addresses are Internet Protocol (IP) address [Scarfe, page 18, lines 5-14 and pages 16-17].

Regarding claim 40, Shultz-Scarfe-McGuire further discloses associating the gathered network addresses with two-dimensional points defined by latitude and longitude values estimated from the network address [McGuire, paragraph 112].

Regarding claim 41, Shultz-Scarfe-McGuire further discloses mapping the network addresses to cities that are estimated to be close to physical locations associated with the network addresses [[Shultz, paragraph 18];
mapping the cities to two-dimensional points defined by latitude and longitude values [McGuire, paragraph 112].

Regarding claim 46, Shultz-Scarfe-McGuire further discloses the data points are each defined by latitude and longitude values [McGuire, paragraph 112].

6. Claims 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz-Scarfe-McGuire as applied to claim 17 above, and further in view of Houri (US Patent No. 6,665,715).

Regarding claim 27, Shultz-Scarfe-McGuire do not specifically disclose normalizing the determined locations based on populations associated with locations of the determined locations. However, Houri, in the same field of endeavor discloses based on the number of users, the data may relate to a city, state, country etc. [Houri, column 7, line 59 – column 8, line 4]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the number of users in a location in order to normalize geographical information on a users location.

Regarding claim 29, Shultz-Scarfe-McGuire-Houri further discloses dynamic IP addresses are given less weight in the cluster analysis than static IP address [Houri, column 2, lines 34-40].

7. Claims 33-34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz-Scarfe as applied to claim 30 above, and further in view of Houri (US Patent No. 6,665,715).

Regarding claim 33, Shultz-Scarfe do not specifically disclose performing the cluster analysis on the location data points, the geographic relevance component is further configured to normalize the location data points. However, Houri, in the same field of endeavor discloses based on the number of users, the data may relate to a city, state, country etc. [Houri, column 7, line 59 – column 8, line 4]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the

number of users in a location in order to normalize geographical information on a users location.

Regarding claim 34, Shultz-Scarfe-Houri further discloses the normalizing is based at least in part on population associated with the location data points [Houri, column 7, line 59 – column 8, line 4].

Regarding claim 37, Shultz-Scarfe-Houri further discloses the statistical model is based on a Gaussian model [Houri, column 7, lines 55-58, the process of step 58 is repeated for each level of information (filtering of the information), until the percentage threshold is satisfied].

(10) Response to Argument

Applicant argues:

Claims 6 and 8-10

A – "However, SCHULTZ does not disclose or even remotely suggest providing a document to the second user based, at least in part, on a matching of the search rank of a returned document to a search query submitted by a first user, as would be required by claim 6, based on the Examiner's interpretation of SCHULTZ. In other words, any documents returned to a second user are not in any way based on any geographical relevance of such documents to a search query entered by a first user. Therefore, this

section of SCHULTZ cannot disclose or suggest providing a document associated with a resource to a second user based, at least in part, on a matching of the geographic relevance of the resource to the second location information (where the geographic relevance of the resource is determined based on an analysis of location information associated with first users), as recited in claim 6".

The Examiner disagrees:

A - In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., providing a document to the second user based, at least in part, on a matching of the search rank of a returned document to a search query submitted by a first user) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Examiners position is that the analysis information of the first user is not linked to the last limitation of claim 6, 'providing a document associated with the resource…'.

Claims 1-4

B - "SHULTZ and SCARFE do not disclose or suggest performing a cluster analysis of geographic locations to locate a cluster of the geographic locations".

The Examiner disagrees:

B – Shultz describes geographical locations [Shultz, paragraph 17], Scarfe discloses a cluster analysis in order to locate a cluster of geographical similar IP address [Scarfe, page 18, lines 5-14 and pages 16-17].

C – "Appellants submit that the Examiner's reasons for combining SCHULTZ and SCARFE do not meet the requirements of 35 U.S.C. § 103.

The Examiner disagrees:

C - Shultz teaches finding geographically relevant documents, Scarfe discloses finding geographically relevant IP addresses by performing cluster analysis, Scarfe adds another way to enhance Shultz.

Claims 14, 16 and 18-21

D – "At the outset, Appellants object to the Examiner's piecemeal examination of the above feature of claim 14. Claim 14 does not recite 'cluster analysis' and 'determining the geographical relevance of a web site'".

The Examiner disagrees:

D – Claim 14, similar to claim 1 is rejected by the combination of both SCHULTZ and SCARFE and as the limitation of claim 14 is similar to claim 1, the reasons for combining SCHULTZ and SCARFE are the same. The Examiner's use of putting the paragraphs or line numbers from each reference at logical points within the claim to show were that limitation or portion of the limitation can be found is merely for appellants convenience to quickly locate the applicable sections of SCHULTZ and SCARFE.

Claim 31

E – "Appellants submit that these sections (or any other section) of SCARFE do not disclose or suggest performing cluster analysis on collected location information, as recited in claim 31".

The Examiner disagrees:

E – SCARFE discloses performing a cluster analysis on collected location information at least in [Scarfe, page 11, lines 22-25, 'classifies each of the IP addresses in the firewall data into one of the determined clusters...'].

Claim 32

F – "This section of SCARFE does not disclose or suggest that a geographic relevance component additionally determines a probability that a location associated

with a user that submitted a search query is geographically relevant to documents in the set of documents based on a statistical model applied to the one or more clusters".

The Examiner disagrees:

F – SCHULTZ discloses geographically relevant documents [Schultz, paragraph 14], SCARFE discloses cluster analysis and probabilities with the IP address within those clusters as being a possible threat [Scarfe, pages 11, 16-18]. The combination of SCHULTZ and SCARFE show a probability that a location associated with a user search query is geographically relevant to the documents.

Claims 35, 36 and 39

G – "Therefore, this section of SCARFE does not disclose or suggest acquiring geographic relevance information for a network resource, the geographic relevance information including information that defines at least one cluster associated with the network resource, the information defining the at least one cluster including at least a center point of the cluster and a measure of dispersion of the cluster, as recited in claim 35".

The Examiner disagrees:

G - SCHULTZ defines a geographical relevance [Schultz, paragraph 14]. SCARFE discloses a center point of the cluster in that the cluster is determined by analyzing various IP address locations, Several clusters may be formed, in order to

define the boundaries of a cluster, a center point must be chosen even if the center point may be adjusted as further analysis of IP address is accomplished. Additionally, dispersion is analyzed as clusters are formed and re-formed based on number of points (dispersion) within the clusters [Scarfe, at least, pages 11, 16-18]

Claim 23

H – "This section of SCHULTZ does not disclose or suggest distance from cities".

The Examiner disagrees:

H – SCHULTZ-MCGUIRE discloses distance from longitudinal and latitudinal coordinates which define a city by lat and long coordinates [Schultz, paragraph 18, 49, (geographical area may be a city) and McGuire, paragraph 112].

Claim 26

I - "Therefore, this section of SCHULTZ cannot disclose or suggest determining a probability that a location associated with a particular user is within the geographic location associated with the resource based on a statistical model applied to the one or more clusters".

The Examiner disagrees:

I - SCHULTZ discloses geographically relevant documents [Schultz, paragraph 14], SCARFE discloses cluster analysis and probabilities with the IP address within

those clusters as being a possible threat [Scarfe, pages 11, 16-18]. The combination of SCHULTZ and SCARFE show a probability that a location associated with a user search query is geographically relevant to the documents.

Claim 27

J – "Therefore, this section of HOURI cannot disclose or suggest normalizing determined locations based on populations associated with locations of the determined locations".

The Examiner disagrees:

J – Houri discloses based on the population of number of users, the data may relate to a city, state, country etc. [Houri, column 7, line 59 – column 8, line 4]. The population of users is a population associated with a location.

Claim 29

K – "This section of HOURI does not disclose or suggest that dynamic IP addresses are given less weight in the cluster analysis than static IP address".

The Examiner disagrees:

K – SCARFE-HOURI discloses that static IP address are given more weight [Houri, column 2, lines 34-67 and Scarfe, pages 9-11 and 16-18].

All claim numbers have not been listed as repeated arguments for claims have been covered in above responses to arguments.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/W.J.G./

Examiner, Art Unit 2445

Conferees:
/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2445
/John Follansbee/ SPE 2451